SYSTEM AND METHOD FOR CLASSIFYING
NETWORK PACKETS WITH PACKET
CONTENT

Inventor: Brian C. Smith

Attorney Docket: 066101.0315

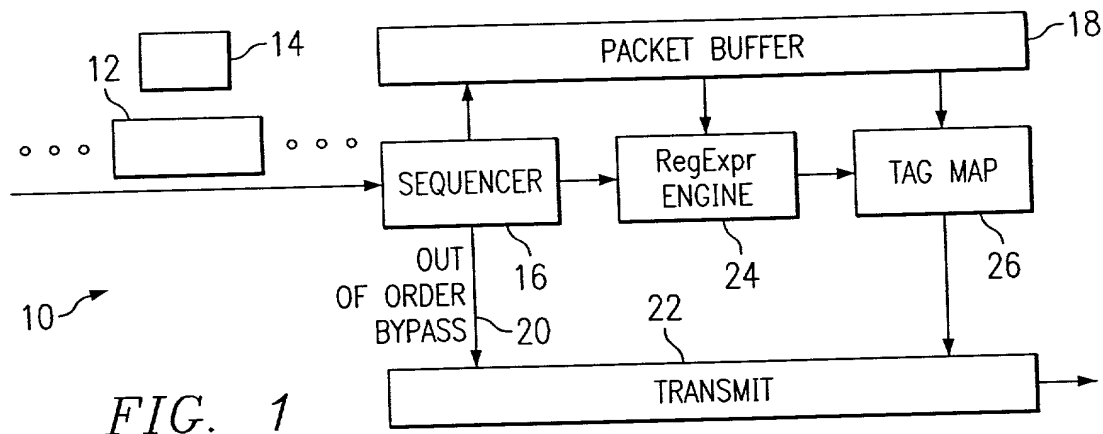1/3

FIG. 1

STREAM TRACKER
• DATA STRUCTURE TO TRACK
  PACKETS AND STREAMS

ENQUEUE ENGINE:
• RECEIVES PACKET
• READS STREAM ID
• SENDS PACKET TO
  PACKET BUFFER
• UPDATES STREAM TRACKER
IF OUT-OF-ORDER:
• SENDS TO TRANSMITTER
• MARKS PACKET AS "SENT"

DEQUEUE ENGINE:
• RECEIVES STREAM ID
• LOOKS UP AND SENDS
  ID OF NEXT PACKET
• IF NO NEXT PACKET IN
  REQUESTED STREAM, SENDS
  NEXT PACKET FROM
  ANOTHER STREAM
  THAT'S READY
• UPDATES STREAM TRACKER

FIG. 2

SYSTEM AND METHOD FOR CLASSIFYING
NETWORK PACKETS WITH PACKET
CONTENT

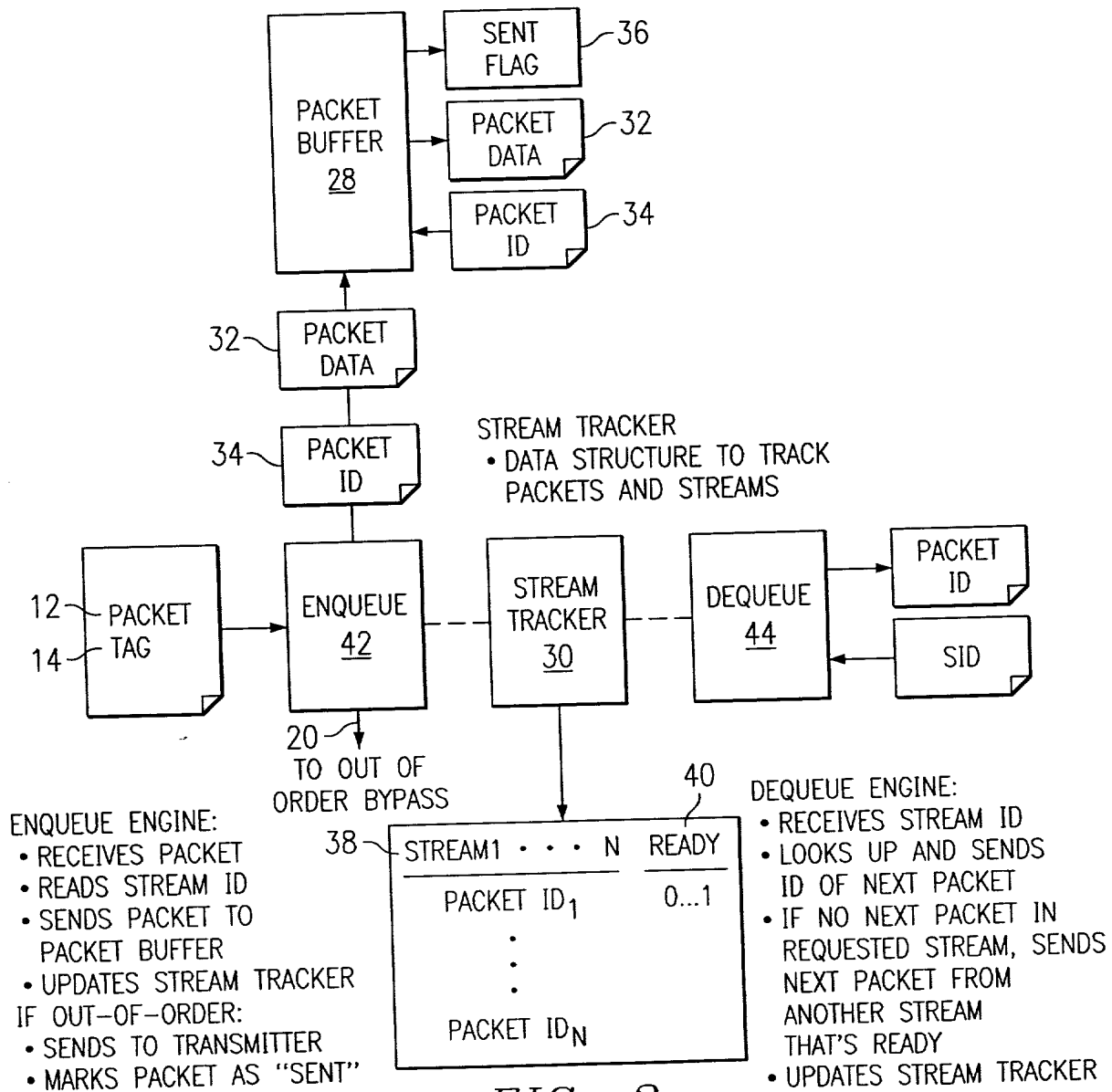Inventor: Brian C. Smith

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FIG. 3

SYSTEM AND METHOD FOR CLASSIFYING
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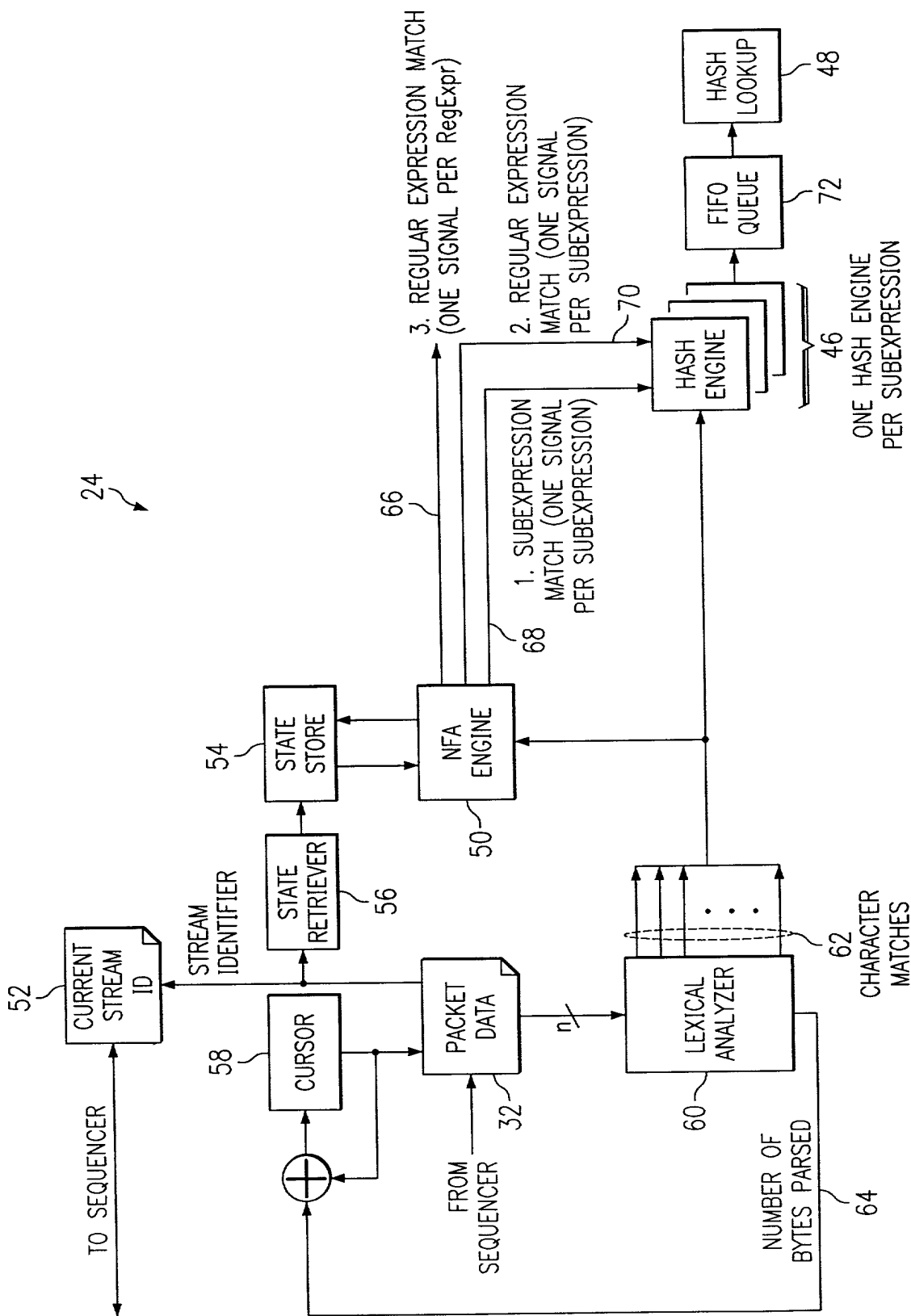*3/3*

FIG. 4

abc*([ef]+)g

IN
SUBEXPRESSION
FLAG

IN SUBEXPRESSION FLAG

FIG. 5

48

72

FIFO QUEUE

74

LOW BITS

76

HIGH BITS

78

HASH TABLE

=?

RESULT
OF
HASHED
MATCH

HASHED VALUE

HASHED VALUE

HASHED VALUE

HASHED VALUE

HASHED VALUE

HASHED VALUE

HASHED VALUE

HASHED VALUE

HASHED VALUE

HASHED VALUE